



Superfund
Redevelopment
Initiative

SITE REDEVELOPMENT PROFILE

Tar Creek Superfund Site
Ottawa County, Oklahoma



Before-and-after views of the cleanup of the Distal 6a chat pile at the site. (Source: EPA)

Site Location: Miami/Picher/Surroundings, Ottawa County, Oklahoma 74339

Size: The site consists of areas in Ottawa County, Oklahoma and Treece, Kansas impacted by historical mining wastes. The site is also part of the Tri-State Mining District (the District), which spans parts of Oklahoma, Kansas and Missouri.

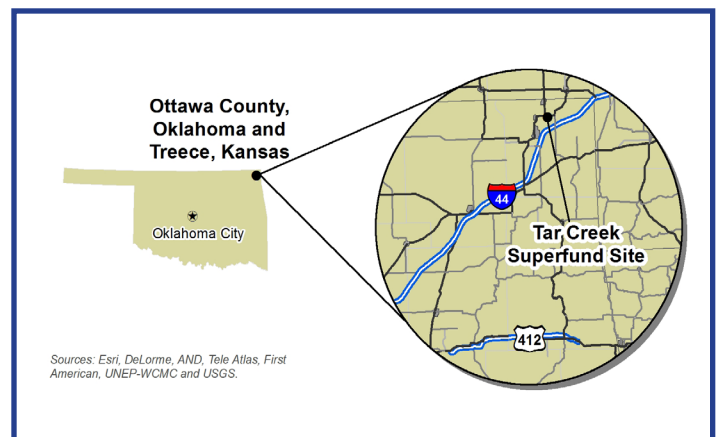
Existing Site Infrastructure: All major types of infrastructure are located on site.

Current Site Uses: Residential, commercial, public and agricultural uses are ongoing at many cleaned-up properties. New uses underway on site include recreational, cultural preservation and agricultural areas.

Use Restrictions: Deed restrictions control future use of some properties and use of groundwater.

Area Population: 31,848 people live in Ottawa County, Oklahoma (2010 Census).

The Tar Creek Superfund site consists of areas in Ottawa County, Oklahoma and Treece, Kansas impacted by historical mining wastes. The site is also a part of the Tri-State Mining District, which spans parts of Oklahoma, Kansas and Missouri. The mining era left a legacy of open mine shafts, mine discharge, and large volumes of mining and milling wastes contaminated with lead, zinc and cadmium. EPA added the site to the Superfund program's National Priorities List (NPL) in 1983. EPA led a series of targeted removal actions, followed by many years of cleanup, to ensure that people could continue to live, work and farm safely in the area.



Location of the site in Ottawa County, Oklahoma and Treece, Kansas.

SITE HISTORY AND REDEVELOPMENT TIMELINE

Early 1900s - 1970s Lead and zinc mining activities in the Picher field of the Tri-State Mining District.

1979 Acid mine water began flowing to the surface and draining into Tar Creek.

1980 - 1981 Investigations led by several government agencies.

1983 EPA added the site to the NPL.

1984 EPA selected cleanup activities for surface water and groundwater at the site.

1987 Groundwater monitoring in the Roubidoux Aquifer began.

1993 Monitoring of child blood lead levels at the site began.

1995 - 2000 EPA conducted removal responses.

1997 EPA selected and began cleanup activities for contaminated soil in residential areas at the site.

2000 EPA removed 120 containers of chemicals and completed cleanup at an abandoned Eagle Picher industrial office complex near Cardin.

“The Quapaw Nation is proud of our continuing partnership with the EPA and ODEQ.”

– John Berrey, Quapaw Nation Chairman



Tar Creek before cleanup. (Source: EPA)

EPA has worked with local government, community organizations, businesses, residents and partners to consider reuse during the cleanup process. Reuse planning brings communities together with EPA to identify opportunities to strengthen site cleanups, build partnerships and enable meaningful reuse outcomes. Involving partners in the cleanup process leads to:

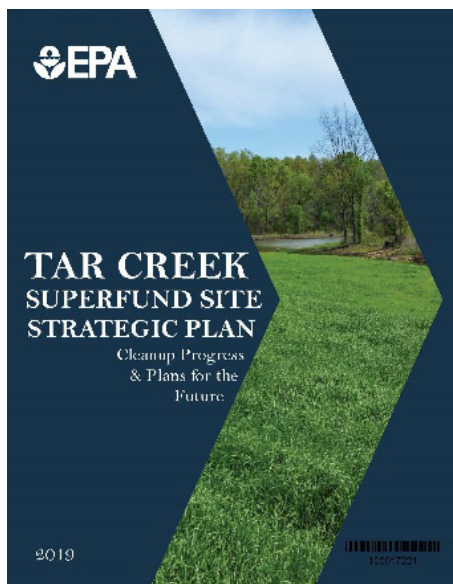
- Protecting the remedy,
- Promoting long-term stewardship,
- Creating awareness about opportunities for site reuse and
- Leveraging cleanup dollars.



Preserved historic structures at the site. (Source: EPA)

To date, cleanup has included the relocation of four impacted communities, the excavation of lead-contaminated soil from nearly 3,000 residential yards and high-access areas, and the remediation of over 5 million tons of mining waste (also known as chat) and contaminated soil. Half a million tons have been provided annually to chat processors to be sold. Over 900 acres of land previously covered by mining waste have been made available for future use. Other efforts have included surface water management through constructed wetlands and the plugging of abandoned wells. Looking forward, substantial cleanup work remains and will take decades to complete.

EPA facilitates community involvement in site-related activities by making technical assistance services available, in coordination with Local Environmental Action Demanded (L.E.A.D.) Agency, a nonprofit organization that promotes awareness of health and environmental issues related to the site. EPA awarded L.E.A.D. Agency with a Technical Assistance Grant and provided technical assistance services to the community through EPA's Technical Assistance Services for Communities program. EPA also supported a Superfund Job Training Initiative (SuperJTI) at the site in coordination with L.E.A.D. Agency to provide job-readiness training and employment opportunities for underserved citizens living in communities affected by the site.



EPA's 2019 strategic plan continues to guide cleanup progress at the site. (Source: EPA)

SITE HISTORY AND REDEVELOPMENT TIMELINE CONTINUED

2008	EPA selected and began cleanup activities for rural areas where mining wastes are located.
2009	Relocation of four impacted communities began.
2010-2011	EPA supported a Superfund Job Training Initiative at the site in coordination with L.E.A.D. Agency
2012	The Quapaw Nation entered into a cooperative agreement with EPA for cleanup of the Catholic 40 area of the site.
Dec 2013 - Jan 2014	The Quapaw Nation completed cleanup of the Catholic 40 site, including the preservation of historical features.
2014	<p>The Quapaw Nation signed cooperative agreements with state of Oklahoma and EPA for cleanup of additional properties at the site.</p> <p>ODEQ signed cooperative agreements with EPA for cleanup of residential areas at the site and non-tribal properties where mining wastes are located.</p>
Sep 2019	<p>EPA published the Tar Creek Superfund Site Strategic Plan.</p> <p>Solar reuse assessment for the Bird Dog Chat Pile is published.</p>
Summer 2020	Grand opening of splash pad and city park in Miami scheduled to take place.
Ongoing	Site remediation is ongoing. Redevelopment activities continue and large parts of the site remain in continued use.



Before-and-after views of the cleanup of the Distal 10 area, now in use for agricultural purposes. (Source: EPA)



After: The Catholic 40 property following cleanup. Before: Cleanup work at the Catholic 40 property by the Quapaw Nation. (Source: EPA)

In September 2019, EPA, in cooperation with the state of Oklahoma, the Quapaw Nation, and numerous partners, released the [Tar Creek Superfund Site Strategic Plan](#) to advance the cleanup of the Tar Creek Superfund site. The strategic plan provides an update on the cleanup

progress and outlines how EPA, the Oklahoma Department of Environmental Quality (ODEQ), the Quapaw Nation and the Tar Creek community will work to improve progress in addressing mining waste and contamination at the site.

“This Strategic Plan, developed with our fellow stakeholders and the fine dedicated federal team at Region 6 and the EPA central office led by Administrator Wheeler, puts on paper a collaborative plan for a positive future working together to reduce the footprint at the Tar Creek site.”

– John Berrey, Quapaw Nation Chairman

To date, cleanup across this large site has enabled widespread continued agricultural, commercial, public service and residential use and facilitated new development. Today, businesses in rural areas impacted by mining wastes employ nearly 1,300 people and contribute almost \$50 million in estimated annual employment income. In 2019, site businesses generated an estimated \$152 million in combined sales revenue.

Redevelopment is underway across the site. Most recently, the city of Miami partnered with ODEQ and EPA on the cleanup of the Eagle Picher office complex, located in the heart of Miami. It originally served as the local headquarters for the Eagle Picher Mining Company. For many years, the office complex sat abandoned with several environmental challenges, including the presence of mining waste on the property.

The city acquired the property, coordinated cleanup efforts with ODEQ and EPA, and converted the site into a splash pad and city park. The grand opening of the facilities is scheduled to take place in the summer of 2020.

One of EPA's partners, the Quapaw Nation, successfully cleaned up the Catholic 40, a 40-acre area with significant cultural and historic meaning for the Quapaw Nation. This is the first NPL site cleanup led by a Native American tribe. In late December 2013 and early January 2014, workers excavated about 108,000 tons of contaminated mining waste for off-site disposal. Workers preserved historic structures, artifacts and landscape features during the cleanup. Recovered artifacts are now protected at the tribal museum in Oklahoma. Today, the Quapaw Nation continues to plan for the future at the Catholic 40 site, including archeological research, education, historic preservation and grazing. The area is an important part of the Quapaw Nation's cultural and religious practices.

The Quapaw Nation, in cooperation with EPA and ODEQ, also continue planning, designing and leading cleanup activities at other contaminated areas of the site. These efforts have set the stage for several redevelopment projects that reflect the Quapaw Nation's reuse priorities, including cultural preservation, agricultural use and the expansion of the Quapaw Nation's traditional economic focus on ranching.

Finally, EPA has also worked on a solar reuse assessment in partnership with the Grand River Dam Authority and the Quapaw Nation. EPA and the Quapaw Nation developed cleanup plans for the Bird Dog Chat Pile located on a portion of the 1,100-acre proposed solar project area. By coordinating cleanup with planning for the solar development, the goal is to expand the solar footprint and reduce flood risk and construction costs. The project area has the potential to support a 150-megawatt solar facility.



“Great progress has been made at the Tar Creek Superfund site, but much work is yet to be done. Through the objectives outlined in the strategic plan, and with the ongoing efforts of our partners, we will continue to build on our previous accomplishments and create a better home for Tar Creek area residents.”

– Scott Thompson, Oklahoma Department of Environmental Quality Executive Director

FOR MORE INFORMATION

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